

BIBLIOGRAPHICAL RECORD.

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Corrections of errors and notices of omissions are solicited.

- A[aron], E[ugene] M.** The papilios of New Jersey. (Science advocate, July 1880, v. 1, no. 3, p. [1], col. 2-4, 58 cm.; Oct. 1880, v. 1, no. 4, p. [1, 4], 170 cm.)
Popular account of the 5 species of *papilio* found in New Jersey; their habits, varieties and transformations.
B: P. M. (1841)
- Adolph, G. Ernst.** Ueber Insectenflügel. (Nova acta d. kais. Leop.-Carol.-deutsch. Akad. d. Naturforscher, 1879, bd. 41, pars 2, no. 3, p. 215-291, pl. 27-32.)
Separate, Halle, 1880. t-p. cover, p. 1-79 [or t-p., p. 215-291], pl. 1-6 [or 27-32]. 33 × 25, t 19.5 × 14. pam., M. 8.
General discussion of the venation of the wings of insects.
G: D. (1842)
- Ants and their milch cattle.** (Sci. amer., 22 May 1880, v. 42, p. 327-328, 64 cm., 1 fig.)
Popular account of how species of *formica* keep aphides for their sweet secretion.
G: D. (1843)
- Apple tree borers.** (Cultivator and country gent., 10 June 1880, v. 45, no. 1428, p. 376, col. 2, 5.5 cm.)
Methods of destroying borers in apple trees; by painting the stems with coal tar; by an application of soft soap or soft soap and tobacco; by use of a knife and barbed wire.
J. D. P. (1844)
- Army worm (The).** (Rural new yorker, 12 June 1880, v. 39, p. 380, col. 2-3, 39 cm., 3 fig.)
Leucania unipuncta appears on Long Island, N. Y., in vast numbers, and is very destructive to crops.
J. D. P. (1845)
- Army worm (The).** No decrease in its devastation on Long Island. Farmers in despair compelled to cut down their green crops to save them from the insect. New Jersey invaded. (N. Y. herald, 11 June 1880, . . . , 138 cm.)
Reporter's description of the progress of *leucania unipuncta* in New Jersey, and of the remedies tried.
G: D. (1846)
- Army worm (The).** The department of agriculture investigates the insect's habits. A voracious pest. Methods of destroying it and limiting the area of its ravages. (N. Y. herald, 14 June 1880, . . . , 72 cm.)
Letter of J: H. Comstock, containing brief account of *heliophila (leucania) unipuncta* and mode of destroying its larvae; letters from agriculturists.
G: D. (1847)
- Army worm in Essex County (The).** (Boston d. advert., 28 June 1880, no. 22414, v. 135, no. 155, p. 4, col. 1⁵, 7 cm.)
Ravages and movements of larvae of *leucania unipuncta* in Essex Co., Mass.; futile attempts to destroy the pests.
B: P. M. (1848)
- B., C.** Exterminating lice — 2. (Cultivator and country gent., 10 June 1880, v. 45, no. 1428, p. 375, col. 2-3, 23 cm.)
Cleanliness and air-slacked lime the best means of exterminating chicken lice.
J. D. P. (1849)
- B., S.** [Bees eating animal matter.] (Journ. sci., May 1880, s. 3, v. 2, p. 341.)
Wasps and bees seen sipping blood from a fresh steak, probably only for moisture.
G: D. (1850)
- Bailey, W. W.** Humble bees and the *gerardia flava*. (Amer. nat., Oct. 1879, v. 13, p. 649.)
Bombus perforates the corolla of *gerardia*. G: D. (1851)
- Ballou, W: Hosea.** The literature of Dr. A. S. Packard, jr. (Chicago [Ill.] field, 31 Jan. 1880, v. 12, p. 396-398, 266 cm.)
Enumerates 158 titles of papers wholly or in part by Alpheus Spring Packard, jr., many of which are entomological; and some of the titles are accompanied by quotations and reviews.
G: D. (1852)
- Bethune, C: James Stewart.** Entomology for beginners. The tomato worm, *sphinx quinquemaculata*, Haworth. (Can. entom., June 1880, v. 12, p. 101-104, fig.)
Describes and figures various stages of *s. quinquemaculata*.
G: D. (1853)
- Billings, Elkanah.** [Obituary notice, by J. F. Whiteaves, entitled] "Obituary notice of Elkanah Billings, F. G. S." (Can. nat., 1877, v. 8, p. 251-261.)
Mr. Billings was b. 5 May 1820, and d. 14 June 1876. [Psyche, Rec., no. 593.]
B: P. M. (1854)
- Brauer, Friedrich.** Eine unbewusste Entdeckung Fritz Müller's. (Zool. Anzeiger, 22 March 1880, jahrg. 3, p. 134-135.)
F. Müller has first discovered the early stages of one of the *blepharoceridae*, which he names *curupira torrentium*. *Curupira*, Müller, is a synonym of genus *paltostoma*, Schiner, from Bogota. Relationship of the *blepharoceridae* as based upon their metamorphoses.
G: D. (1855)

Brown, Warren. Vermin on stock. (Western stock journ. and farmer, June 1880, v. 10, no. 6, p. 127, cols. 1-2, 43 cm.)

Various remedies for lice on animals tried; recommends the use of carbolic soap, and gives directions for making it. *J. D. P.* (1856)

Bugs in peas not chinch bugs. (Prairie farmer, 12 June 1880, v. 51, no. 24, p. 188, col. 5, 5 cm.)
Bugs infesting peas at Henry, Dak., are not chinch bugs. *J. D. P.* (1857)

Bugs, To protect vines from. [By "Farmer's wife."] (Cultivator and country gent., 10 June 1880, v. 45, no. 1428, p. 375, col. 2, 5 cm.)

Insects may be kept away from vines by covering the vines with netting; solution of hen-manure not agreeable to bugs. *J. D. P.* (1858)

Burgess, E. The structure and action of a butterfly's trunk. (Amer. nat., May 1880, v. 14, p. 313-319, fig. 1-6.)

Minute structure of the proboscis of *danaus archippus*; butterflies roll their proboscis by action of its diagonal muscles; fluids are pumped into the stomach by an oral sack. *G. D.* (1859)

C., J. F. Worms in peach trees. (Rural new yorker, 29 May 1880, v. 39, no. 22, p. 346, col. 3, 3 cm.)

Method of destroying worms (species not stated) at the roots of peach trees, with boiling water. *J. D. P.* (1860)

Cabbage worms. (Prairie farmer, 12 June 1880, v. 51, no. 24, p. 186, cols. 3-4, 45 cm.)

A species of *agrotis* destructive to cabbage; habits and remedies; compared with *peris rapae*. *J. D. P.* (1861)

Carlet, G. Sur la locomotion des insectes et des arachnides. (Comptes rendus, 29 Dec. 1879, p. 1124-1125.)

Eng. tr., entitled, "On the locomotion of insects and arachnida." (Ann. and mag. nat. hist., Feb. 1880, s. 5, v. 5, p. 196.)

"Extract. (Naturforscher, 1880, no. 8, p. 75.)"

G. D. (1862)

Carlet, G. On the locomotion of insects and arachnida. (Ann. and mag. nat. hist., Feb. 1880, s. 5, v. 5, p. 196.)

Eng. tr. of G. Carlet's "Sur la locomotion des insectes et des arachnides" (Comptes rendus, 29 Dec. 1879, p. 1124-1125) [PSYCHE, Rec., no. 1862]. *G. D.* (1863)

Carpenter, W. L. Experiments with *pyrethrum roseum* in killing insects. (Amer. nat., March 1879, v. 13, p. 176-177.)

Timed experiments upon a number of insects placed with powdered *pyrethrum* "under a tumbler, which was slightly raised to admit fresh air." "In experimenting upon the *coleoptera*, an insect as nearly the size of the carpet-beetle as could be found was secured in *Diabrotica duodecim-punctata*, an abundant species here. It was easily affected and became helpless in twelve minutes." "These experiments prove that all insects having open mouth parts are peculiarly susceptible to this powerful drug. And as a result, the writer does not hesitate to recommend the powder to housekeepers as an infallible agent in destroying the carpet-beetle and preventing its ravages." *G. D.* (1864)

Connoisseurs will recognise the absurdity of the argument.

B. P. M.

[**Cermatia forceps** in Rhode Island.] (Science advocate, Jan. 1880, v. 1, no. 1, p. [4], col. 2, 4 cm.)

Abstract of A. S. Packard, jr.'s "A poisonous centipede" (Amer. nat., Aug. 1879, v. 13, p. 527) [PSYCHE, Rec., no. 1780]. *G. D.* (1865)

Chambers, Vactor Tousey. Descriptions of new *tineina* from Texas, and others from more northern localities. (Bull. U. S. geol. and geog. surv. terr., 1878, v. 4, no. 1, p. 79-106.)

Describes the following 1 n. g. and 46 n. sp.: *anaphora texanella*, *tinea* ? *septem-strigella*, *anesychia hagenella*, *hypoponomeuta zelleriella*, *depressaria eupatoriella*, *d. fernaldella*, *cryptolechia* ? *obscurumaculella*, 13 sp. of *gelechia*, *dasycera nonstrigella*, 7 sp. of *coleophora*, *cosmopteryx quadrilineella*, *eriphia* ? *albolineella*, *e* ? *nigrilineella*, *elachista texanella*, *e. staintonella*, *tischeria latipenella*, *t. pulvella*, 5 sp. of *tithocolletis*, *acanthocnemes* (n. g., type: *a. fuscocapulella*), *a. fuscocapulella*, *phyllocnistis erechitisella*, 4 sp. of *nepticula*; notes on other species of the same genera and of *ypsophus*, *cleodora*, *ansaria*, and *butalis*, especially synonymical notes on certain species described as *depressaria*; *hogno* = *psilocorsis* = *cryptolechia* pars. *B. P. M.* (1866)

Chambers, Vactor Tousey. Index to the described *tineina* of the United States and Canada. (Bull. U. S. geol. and geog. surv. terr., 1878, v. 4, no. 1, p. 125-167.)

Reference to European literature as late as 1875 and N. American as late as 1877 or later, upon these insects as American species. Enumerates about 780 accepted species, belonging to about 108 accepted genera, with synonyms. *B. P. M.* (1867)

Chambers, Vactor Tousey. *Tineina* and their food-plants. (Bull. U. S. geol. and geog. surv. terr., 1878, v. 4, no. 1, p. 107-123.)

"A catalogue of plants which are fed upon by the *tineina* within the limits of the United States and Canada so far as they are at present known. Mentions about 90 species or groups of species of plants (all phaenoganous); about 30 species of larvae, the imago of which are unknown; about 200 species, of which the imago also are known; and about 5 species known only by their mines. *B. P. M.* (1868)

Charbonneau, Émile. Chasses aux coléoptères dans les villes. (Feuille des jeunes naturalistes, April 1870, an. 10, p. 82.)

Localities for searching insects in town. *G. D.* (1869)

Chatin, Joannes. Origine et valeur morphologique des différentes pièces du labium chez les orthoptères. (Comptes rend., 15 Oct. 1879, v. 89, p. 652-653.)

G. D. (1870)

[**Cholodkowsky, N.**] Ueber den Bau der Testikel bei Schmetterlingen. (Zool. Anzeiger, 3 May 1880, Jahrg. 3, p. 214-215.)

Abstract of a paper by N. Cholodkowsky before the zoological section of the sixth assembly of Russian naturalists and physicians. *G. D.* (1871)

Cholodkowsky, N. Ueber die Hoden der Schmetterlinge. (Zool. Anzeiger, 8 March 1880, Jahrg. 3, p. 115-117.)

Records the important points gained in the study of the testes of 34 species of diurnal lepidoptera. *G. D.* (1872)

Cochineal insect (The). (New remedies, June 1880, v. 9, p. 175, 18 cm.)

Partial reprint of H. B. M.'s "Curious facts concerning the cochineal insect . . ." (Sci. amer., 22 Nov. 1879, v. 4, p. 325, col. 1) [PSYCHE, Rec., no. 1536]. G: D. (1873)

Coleman, Nathan. Habits of the cut worm [larva of *agrotis*]. (Amer. nat., June 1873, v. 7, p. 372.) G: D. (1874)

Comstock, J. H. Report upon cotton insects, prepared under the direction of the commissioner of agriculture in pursuance of an act of Congress approved June 19, 1878. Washington, 1879. 5 + 511 p., 3 pl., 24 × 15, t 19 × 11.1, 76 il.

Notice. (Rural new yorker, 5 June 1880, v. 39, no. 23, p. 270, col. 4, 7.5 cm.)

Title, table of contents and letter to the commissioner (p. 1-5, 1-9); full and general account of *Aletia argillacea* (p. 11-234, pl. 1, fig. 1-75); general account of *heliethis armigera* (p. 285-315, pl. 2; fig. 76-77); nectar and its uses (p. 317-343, pl. 3); appendices (p. 345-494); index (p. 495-511). Contains chapters upon the classification and nomenclature, the past history, the habits and natural history and the natural enemies of *Aletia argillacea*, measures preventive of its ravages, statistics of losses, the theory of migrations of the moth, the influence of weather upon it, and a bibliography of nearly 100 citations on these subjects; also chapters upon the importance of *heliethis armigera*, its nomenclature and natural history, the influence of weather upon it, and remedies for its ravages; also (by W. Trelease) a discussion of the nature and uses of nectar, and a bibliography of nearly 200 citations on the subject; also reports of special agents and local observers (E. A. Schwarz, A. R. Grote, E. H. Anderson, W. J. Jones, J. E. Willet, W. Trelease, E. A. Smith), answers to circular, and list of correspondents. B: P. M. (1875)

Comstock, J. H.; see ARMY WORM (The) [PSYCHE, Rec., no. 1847].

Coquillett, Daniel W. On describing larvae. (Can. entom., June 1880, v. 12, p. 108.)

A few terms recommended for use in describing larvae of lepidoptera. G: D. (1876)

Coquillett, Daniel W. On the early stages of some moths. (Can. entom., March 1880, v. 12, p. 43-46.)

Describes larvae of *hypena scabra*, *calpe canadensis*, *pseudoglossa lubricalis*, *scepsis fulvicollis*, *chytolita morbidalis*, *hypoprepia fucosa*, *parorgyia clintonii*, *botis penitatis* and *arsionche henrici*. G: D. (1877)

Couper, W. *Alypia maccullochii*, Kirby. (Can. entom., March 1880, v. 12, p. 41-42, fig. 7-8.) Figures and describes male of this moth. G: D. (1878)

Curculio [*conotrachelus nenuphar*]. (Prairie farmer, 12 June 1880, v. 51, no. 24, p. 186, col. 4, 12 cm.)

Habits of curculio diurnal; methods of destroying them, by jarring, and by Ransom's traps. J. D. P. (1879)

Destruction of insects by fungi. (Amer. nat., July 1880, v. 14, p. 516-517.)

Notice of Elias Metschnikoff's suggestion to employ *isaria destructor* for killing insects. [See METSCHNIKOFF, E., Zur Lehre über Insektenkrankheiten (PSYCHE, Rec., no. 1634).] G: D. (1880)

Dragon fly (The). (Science advocate, Oct. 1880, v. 1, no. 4, p. [4], col. 3-4, 37 cm.)

From the Worcester [Mass.] spy. Popular general account of the *odonata*. B: P. M. (1881)

Fabre, J. H. Mœurs et parthénogénèse des halictes [PSYCHE, Rec., no. 1629].

Eng. tr., entitled, "On the habits and parthénogenesis of the halicti." (Ann. and mag. nat. hist., Feb. 1880, s. 5, v. 5, p. 194-196.) G: D. (1882)

Fabre, J. H. On the habits and parthénogenesis of the halicti. (Ann. and mag. nat. hist., Feb. 1880, s. 5, v. 5, p. 194-196.)

Eng. tr. of J. H. Fabre's "Mœurs et parthénogénèse des halictes" (Comptes rendus, 22 Dec. 1873, p. 1079-1081) [PSYCHE, Rec., no. 1629]. G: D. (1883)

Fatio, V. Désinfection des véhicules par l'acide sulfureux anhydre. (Comptes rendus, 12 April 1880, v. 90, p. 851-854.)

Experiments in railway carriages to determine the destructive effect of sulphurous anhydride [SO₂] upon plants and upon phylloxera. G: D. (1884)

Fletcher, James. Notes and queries. (Can. entom., March 1880, v. 12, p. 60.)

Answer, by A. H. Mundt, entitled, "[Cosus]." (Can. entom., May 1880, v. 12, p. 100.) Inquiries about how to rear wood-boring insects. G: D. (1885)

Foster, S[uel]. Crop and market reports, Muscatine, Iowa, May 25 [1880]. (Cultivator and country gent., 3 June 1880, v. 45, no. 1427, p. 357, col. 4, 5.5 cm.)

Canker worms [*anisopteryx*] mostly destroyed with Paris green, arsenic, and London purple, — the latter much the cheapest and best. J. D. P. (1886)

French, G. Hazen. Notes on the larva of *agrotis lubricans*. (Can. entom., Jan. 1880, v. 12, p. 14.) Describes larva. G: D. (1887)

French, G. Hazen. Notes on the larva of *heterocampa pulverea*, G. & R. (Can. entom., May 1880, v. 12, p. 83-84.)

Describes larva which feeds on *quercus alba* and *q. coccinea*. G: D. (1888)

French, G. Hazen. Two new species of *ichneumonidae*. (Can. entom., March 1880, v. 12, p. 42-43.)

Describes 2 new species, *microgaster utilis* (reared from larva of *sphinx carolina* and from larva of a species of *leucania*) and *macrocentrus iridescens* (reared from a larva supposed to be that of *eugonia subsignaria*). G: D. (1889)

French government and the phylloxera (The). (Times [Lond., Eng.], 17 April 1880, no. 29858, p. 13, col. 2, 5 cm.)

Statistics of expenditures in attempting to suppress the phylloxera. G: D. (1890)

Frost as a vermin-destroyer. [By "An old naturalist."] (Journ. of sci., June 1880, s. 3, v. 2, p. 407.)

The severe cold of the winter of 1878-79 did not prevent the ravages of *abraxas grossulariata* and *plusia gamma* the next summer. G: D. (1891)

- Fügener, K.** Der Duftapparat von *sp. ligustri*. (Entom. Nachrichten, 1 Aug. 1880, jahrg. 6, p. 166.)
Experiments on the apparatus by which *sphinx ligustri* produces an odorous exhalation. *G: D.* (1892)
- Fuller, Andrew S.** Nuts and nut-bearing trees. (Frank Leslie's popular mo., May 1880, v. 9, p. 551-555, 148 cm., 12 fig.)
Popular description and figures of the larva and imago of the regal walnut-moth, *ceratocampa regalis*, and of the larva, pupa and imago of the hazel-nut weevil [*balaninus?*]. *G: D.* (1893)
- Gerard, W. R.** The *saprolegnia ferox*. (Proc. Poughkeepsie [N. Y.] soc. nat. sci., Oct. 1878-July 1879, p. 25-28, 89 cm.)
Sprendonema muscae, a fungus parasitic on flies, is the terrestrial state of an amphibious fungus, which, in its aquatic condition, is *saprolegnia ferox*, a fish-parasite; description of both forms. *G: D.* (1894)
- Gibbes, Lewis R.** Flight of butterflies. (Can. entom., March 1880, v. 12, p. 60.)
Flight of *callidryas* across the harbor of Charleston, S. C., in 1870. *G: D.* (1895)
- Gillman, H.** The Colorado potato beetle varying its food. (Amer. nat., July 1873, v. 7, p. 430-431.)
Doryphora decemlineata eats other plants than *solanum*, or even *solanaceae*. *G: D.* (1896)
- Gissler, Carl Friedrich.** The anatomy of *amblychila cylindriciformis* Say. (Psyche, May-June 1879, v. 2, p. 233-244, pl. 1.)
Rev., entitled, "The microscope in entomology." (Amer. nat., Sept. 1879, v. 13, p. 595-596.) *G: D.* (1897)
- Grote, A: Radcliffe.** On the neurulation of *eustrotia secta*. (Can. entom., March 1880, v. 12, p. 50.)
Describes wing-neurulation. *G: D.* (1898)
- Grote, A: Radcliffe.** New *noctuidae*. (Can. entom., May 1880, v. 12, p. 88-89.)
Describes 2 new species, *rylamiges dolosa* [? from Me.], and *manestra defessa* from California. *G: D.* (1899)
- Grote, A: Radcliffe.** Preliminary list of North American species of *crambus*. (Can. entom., April 1880, v. 12, p. 77-80.)
Enumerates 42 species, two of which, *c. duplicatus* (from N. Y.) and *c. repandus* (from Col.), are new species, with description. *G: D.* (1900)
- [Hind, G: C.]** Collecting and mounting spiders' webs. (Amer. nat., June 1880, v. 14, p. 464-465.)
Abstract of a paper by G: C. Hind, before the Queckett Microscopical Club. The beaded condition of a spider's web is caused by relaxation of the tension of the thread just after it is emitted by the spider. *G: D.* (1901)
- March** of the army worm. (Boston d. advert., 22 June 1880, no. 22409, v. 135, no. 150, p. 1, col. 5, 36 cm.)
Invasion of Connecticut and southeastern Massachusetts by larvae of *leucania unipuncta*; rapidity of their march, havoc in pastures and grain fields. *B: P. M.* (1902)
- Microscope** in entomology (The). (Amer. nat., Sept. 1879, v. 13, p. 595-596.)
Rev. of C. F. Gissler's "The anatomy of *amblychila cylindriciformis* Say" (Psyche, May-June 1879, v. 2, p. 233-244, pl. 1) [Psyche, Rec., no. 1897.] *G: D.* (1903)
- Miller, A.** Ant battles. (Amer. nat., March 1880, v. 14, p. 209.) *G: D.* (1904)
- Mivart, St. G:** The relations of living beings to one another. (Contemporary rev., y. 15, April 1880, p. 606-625.)
Discusses relations of insects to plants and to other living beings. *G: D.* (1905)
- Mundt, A. H.** [Cossus.] (Can. entom., Feb., 1880, v. 12, p. 39.)
Supplement. (Can. entom., May 1880, v. 12, p. 100.)
Records finding larvae of *cossus* in oak [*quercus*] and in cottonwood [*populus*]; notes upon the larvae. *G: D.* (1906)
- Mundt, A. H.** [Cossus.] (Can. entom., May 1880, v. 12, p. 100.)
Supplement to a letter by the author (Can. entom., Feb. 1880, v. 12, p. 39) [Psyche, Rec., no. 1906], and in answer to James Fletcher's "Notes and queries" (Can. entom., March 1880, v. 12, p. 60) [Psyche, Rec., no. 1885]. *G: D.* (1907)
- Novi, G.** Sur l'emploi des sables volcaniques dans le traitement des vignes attaquées par le phylloxera. (Comptes rendus, 31 May 1880, v. 90, p. 1258-1259.)
Employs volcanic sand against phylloxera. *G: D.* (1908)
- [Odorous exhalation in butterflies.]** Ueber den Duft bei Schmetterlingen. (Entom. Nachrichten, 1 Aug. 1880, jahrg. 6, p. 166-167.)
Translation of a note by Ernest Lelièvre (Le naturaliste, 1 June 1880). Both sexes of *thais polyxena* Schiff. (*t. hypostyle* Fabr.) emit an odorous exhalation. Notes an exhalation in *spilosoma fuliginosa*. *G: D.* (1909)
- Packard, Alpheus Spring, jr.,** see BALLOU, W: H., The literature of Dr. A. S. Packard, jr. [Psyche, Rec., no. 1852].
- Reichenau, W.** Der Duftapparat von *sphinx ligustri*. (Entom. Nachrichten, 1 July 1880, jahrg. 6, p. 141.)
The apparatus by which *s. ligustri* emits an odorous exhalation discovered on the first abdominal segment. *G: D.* (1910)
- Trichopetalum [lunatum]** found in Philadelphia, Pa]. (Amer. nat., May 1880, v. 14, p. 376.) *G: D.* (1911)
- White wax** of Sze-chuen (The). (New remedies, March 1880, v. 9, p. 81, 20 cm.)
Mode of obtaining wax from a species of insect [*coccus*], which feeds on *ligustrum lucidum* in China. Facts from *Pall mall gazette*. *G: D.* (1912)
- Whiting, L. C.** Foul brood. (Amer. bee journ., 1879, v. 15, p. 504.) *A. J: C.* (1913)